

packet based network, the remote system comprising a second telephony device, and exchanging data signals between the first telephony device and the remote system at the renegotiated data rate.

In the Claims:

Please cancel claims 46-57 without prejudice and please add new claims 58-82.

58. (New) A communications system, comprising:

a rate negotiator configured to negotiate a data rate with a first telephony device over a network line, and renegotiate the negotiated data rate with a remote system over a packet based network, the remote system comprising a second telephony device; and

a data exchange configured to exchange data signals between the first telephony device and the remote system at the renegotiated data rate.

59. (New) The communications system of claim 58 wherein the data exchange comprises a data pump configured to demodulate the data signals from the first telephony device for transmission over the packet based network to the remote system at the renegotiated data rate, and modulate the data signals from the remote system with a voiceband carrier for transmission over the network line to the first telephony device at the renegotiated data rate.

60. (New) The communications system of claim 59 further comprising spoofing logic configured to spoof the first telephony device in response to a delay of the data signals from the remote system.

61. (New) The communications system of claim 60 wherein the spoofing logic is configured to couple spoofing data to the data pump

in response to the delay of the data signals from the remote system, the data pump spoofing the first telephony device with the spoofing data.

62. (New) The communications system of claim 60 further comprising a jitter buffer configured to buffer the data signals from the packet based network, the jitter buffer causing the spoofing logic to spoof the first telephony device when the data signals buffered are below a threshold.

63. (New) The communications system of claim 62 wherein the jitter buffer is configured to cause the spoofing logic to couple spoofing data to the data pump when the buffered data signals are below the threshold, the data pump spoofing the first telephony device with the spoofing data.

64. (New) The communications system of claim 59 further comprising a clock synchronizer configured to control the renegotiated data rate of the data pump.

65. (New) The communications system of claim 64 further comprising a jitter buffer configured to buffer the data signals from the packet based network, the control of the renegotiated data rate of the data pump by the clock synchronizer being a function of the buffered data signals.

66. (New) The communications system of claim 65 wherein clock synchronizer is configured to control the renegotiated data rate of the data pump by increasing the renegotiated data rate of the data pump if the buffered data signals exceed a first threshold and decreasing the renegotiated data rate of the data pump if the buffered data signals are below a second threshold.

67. (New) A method of communications, comprising:
negotiating a data rate with a first telephony device over a network line;
renegotiating the negotiated data rate with a remote system over a packet based network, the remote system comprising a second telephony device; and
exchanging data signals between the first telephony device and the remote system at the renegotiated data rate.

68. (New) The method of claim 67 wherein the exchange of data signals comprises demodulating the data signals from the first telephony device for transmission over the packet based network to the remote system at the renegotiated data rate, and modulating the data signals from the remote system with a voiceband carrier for transmission over the network line to the first telephony device at the renegotiated data rate.

69. (New) The method of claim 68 further comprising spoofing the first telephony device in response to a delay of the data signals from the remote system.

70. (New) The method of claim 68 further comprising buffering the data signals from the packet based network, the first telephony device being spoofed when the data signals buffered are below a threshold.

71. (New) The method of claim 68 wherein the first telephony device comprises a facsimile machine.

72. (New) The method of claim 68 further comprising buffering the data signals from the packet based network, and controlling the renegotiated data rate as function of the buffered data signals.

73. (New) The method of claim 72 wherein the control of the renegotiated data rate comprises increasing the renegotiated data rate if the buffered data signals exceed a first threshold and decreasing the renegotiated data rate if the buffered data signals are below a second threshold.

74. (New) The method of claim 68 wherein the first and second telephony devices each comprises a telephone.

75. (New) The method of claim 68 wherein the first and second telephony devices each comprises a facsimile machine.

76. (New) The method of claim 68 wherein the first and second telephony devices each comprises a modem.

77. (New) Computer-readable media embodying a program of instructions executable by a computer to perform a method of communications, the method comprising:

negotiating a data rate with a first telephony device over a network line;

renegotiating the negotiated data rate with a remote system over a packet based network, the remote system comprising a second telephony device; and

exchanging data signals between the first telephony device and the remote system at the renegotiated data rate.

78. (New) The computer-readable media of claim 77 wherein the exchange of data signals comprises demodulating the data signals from the first telephony device for transmission over the packet based network to the remote system at the renegotiated data rate, and modulating the data signals from the remote system with a voiceband